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EXAMINER	
LAI, ANDREW	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,489	RAGHAV ET AL.	
	Examiner	Art Unit	
	ANDREW LAI	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 25 is objected to because of the following informalities:

"*... a telephony device with a relationship to a client system ... convert SIP data to computer-telephony-integration ("CT") data and convert CTI data to SIP data*"(emphasis added by Examiner), wherein apparently "*clent*" should be changed to "*client*" and "*CT*" should be changed to "*CTI*". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 20-22, 26-28 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over a first embodiment of Wilcock et al (US 2002/0,073,208, Wilcock_1 hereinafter) in view of a second embodiment of Wilcock (Wilcock_2 hereinafter).

Wilcock discloses "A contact center, and methods of operating a contact center" ([0001] lines 1-2) comprising Wilcock_1 (fig. 3 in conjunction with fig. 7) wherein "communication session abstraction 11 is modeled in the web interaction system by appropriate data structures and method (for example, implemented as instances of a communication session)" ([0042] lines 8-11) "between customer endpoint systems and

the endpoint systems of customer service representatives, CSRs, of the contact center" (Abstract lines 2-5). Wilcock_1 comprises:

- **With respect to Independent claims 20, 26 and 33**

Regarding claim 20, *a method* ("operating method", [0006] line 2) *for controlling and monitoring via client systems* (e.g., fig. 3/7 "communication session manager 14/69" together with fig. 3 "session transport manager 19". For convenience of later discussion we denote hereinafter "communication session manager" as "CSM" and "session transport manager 19" as "STM", which "can be a third party system accessed by users, including contract center CSRs, over the internet", [0377] lines 1-3. And now note "CSM" having "leg controller 20" coupled with a counterpart "leg controller 20" in "endpoint system 1" for providing *controlling and monitoring* of said "endpoint system 1" depicted in fig. 7 as "CSR system 74", [0154] line 16, as well as "for keeping track of a current session and its participants", [0042] lines 11-12) *calls placed through tele*com *devices* (fig. 3/7 "endpoint system 1/74", which carries *calls placed through* it to, e.g., fig. 3/7 "endpoint system 2/60"), *the method comprising:*

providing a plurality of client systems ("CSM" + "STM", all cited above) *and tele*com *devices* ("endpoint system") *within a communication network* (fig. 3/7);

*for each of the tele*com *devices* (fig. 3/7"endpoint system 1/74", or in other words, "CSR desktop"), *providing a logical representation* (in view of above cited "abstraction 11" and see further "the connection-state abstractions exchanged by the leg controllers represent high-level, logical participation in the session transport", [0074] lines 14-18) *and a physical representation* (see, on the one hand and in general, "connection details

include the address and type of the session transport", [0070] lines 4-5, and see, on the other hand and more particularly, "To interface with a particular call, the CSR selects the row containing the call details (and possibly is also required to press an appropriate button", [0188] last three lines) *for the tele*com *device* ("endpoint system 1" or "CSR desktop"), *the logic representation for a tele*com *device representing a communication link of the tele*com *device* ("high level logical participation" cited above for "connection layer" in fig. 3), *the physical representation* ("connection/call details" cited above) *of a tele*com *device representing physical attributes of the tele*com *device* (e.g. "type of the session transport" as well as "appropriate button" of "endpoint system" cited above);

*determining relationships between client systems and tele*com *devices* (above cited "the connection-state abstractions exchanged by the leg controllers", e.g. fig. 3 respective "leg controllers 20" pair in "communication session manager 14" and "endpoint system 1"), *a relationship indicating that a client system* ("CSM" + "STM", all cited above) *is to control a tele*com *device* (fig. 3 "endpoint system 1" under the *control* of "CSM 14" via "leg controllers 20" as well as "STM 19") *via the logical representation* (fig. 3 "leg messages" at "connection layer" between the "leg controllers 20" and through above cited "connection-state abstractions exchanged by the leg controllers" which "represent high-level, logical participation in the session transport") *and the physical representation* (fig. 3, note the "type of transport" of "endpoint system 1" controlled at "transport layer" by "STM 19" via "connection details include the address and type of the session transport" cited above) *of the tele*com *device* (again fig. 3 "endpoint system 1"),

*for each relationship between a client system and a tele*com *device* (again see fig. 3 for the coupling *relationship between* "CSM 14/STM 19" and "endpoint system 1"),

establishing a device control channel (fig. 3 e.g. "channel a" of "session transport 15" in "STM 19") *between the physical representation of the tele*com *device* (e.g., "type of transport" of "endpoint system 1") *and the client system* (fig. 3 "STM 19" and see "Associate with each communication session is a session transport 15 (fig. 2) which is an abstraction of functionality for actually effecting data communication between endpoint systems 16A,B,C corresponding to the session participants 12A,B,C", [0043] lines 1-5); *and*

establishing a call control channel (fig. 3 see the channel carrying "leg message") *between the logical representation of the tele*com *device and the client system* (again refer to fig. 3 depicting, at "connection layer", "CSM 14" having "leg controller 20" paired up with "leg controller 20" of "endpoint system 1" for passing above cited "leg messages") *the call control channel* (again, fig. 3 the channel carrying "leg messages" at the "connection layer") *being different from the device control channel* (again, fig. 3 e.g. "channel a" at the "transport layer", which is shown to be *different from the channel* carrying the "leg messages"); *and*

*under control of each client system that has a relationship with a tele*com *device* (refer to fig. 3 again and appreciate "endpoint system 1" being *under control of client system* "CSM 14/STM 19"),

*controlling the tele*com *device via the logical representation using the call control channel* (see discussion above regarding "CSM 14" *controlling* "endpoint system 1" *via*

the logical representation comprising using *the call control channel* carrying "leg messages") *and via the physical representation using the device control channel* (see discussion above regarding "STM 19" *controlling* "endpoint system 1" *via the physical representation* comprising using *the physical control channel*, e.g., "channel a") *to place calls via tele*com *device* (see fig. 3, the "service layer", and note, as a result of above discussed controlling, the *calls via tele*com *device*, or "endpoint system 1", to "endpoint system 2" therein, which is shown more expressly in fig. 7 as calls from "CSR 74" to "customer 60"); *and*

*monitoring the tele*com *device via the logical representation using the call control channel and via the physical representation using the device control channel* (see discussion above again regarding controlling provided by "SCM 14/STM 19", and further see "The session manager 14 and the session-transport functionality are kept in step through 'leg controllers' 20 (shown in fig. 3)" recited [0045] lines 8-10, and "The leg controller 20 ... monitor the connection state of the entity" recited [0073] lines 8-12) *to receive calls via the tele*com *device* (again see fig. 3, the "service layer", and note, as a result of above discussed monitoring, the *tele*com *device*, or "endpoint system 1", *receives calls* from "endpoint system 2" therein, which is shown more expressly in fig. 7 as calls from "customer 60" to "CSR 74").

Regarding claim 26, *a computer-readable medium containing instructions* (see "using standard techniques such as object-oriented programming (e.g. Java Beans), it is possible for a software automation to interact with a session (and its associated service instance and session transport" recited [0333] 13-17) *for a client system* (fig. 3 "CSM

14" + "STM 19", which "can be a third party system accessed by users, including contract center CSRs, over the internet", [0377] lines 1-3) *to control and monitor calls* (fig. 3 note "service layer" depicting *calls* between "endpoint system 1" and "endpoint system 2", which are shown in fig. 7 as "CSR 74" and "customer 60", respectively") *placed through a tele*com *device* (e.g., fig. 3 "endpoint system 1" or fig. 7 "CSR 74" being shown to have *calls placed through*), *each tele*com *device having a logical representation* (in view of above cited "abstraction 11" and see further "the connection-state abstractions exchanged by the leg controllers represent high-level, logical participation in the session transport", [0074] lines 14-18) *and a physical representation* (see, on the one hand and in general, "connection details include the address and type of the session transport", [0070] lines 4-5, and see, on the other hand and more particularly, "To interface with a particular call, the CSR selects the row containing the call details (and possibly is also required to press an appropriate button", [0188] last three lines) *for the tele*com *device* ("endpoint system 1" or "CSR desktop"), *the logic representation for a tele*com *device representing a communication link of the tele*com *device* ("high-level logical participation" cited above for "connection layer" in fig. 3), *the physical representation* ("connection/call details" cited above) *of a tele*com *device representing physical attributes of the tele*com *device* (e.g. "type of the session transport" as well as "appropriate button" of "endpoint system" cited above), *by a method* ("operating method", [0006] line 2) *comprising:*

determining a relationship between the client system ("CSM 14/STM 19" cited above) *and a first tele*com *device* ("endpoint system 1" or "CSR 74, and see above cited

"the connection-state abstractions exchanged by the leg controllers", e.g. fig. 3 respective "leg controllers 20" pair in "communication session manager 14" and "endpoint system 1");

establishing a device control channel (fig. 3 e.g. "channel a" of "session transport 15" in "STM 19") *between the physical representation of the first tele*com *device* (e.g., "type of transport" of "endpoint system 1") *and the client system* (fig. 3 "STM 19" and see "Associate with each communication session is a session transport 15 (fig. 2) which is an abstraction of functionality for actually effecting data communication between endpoint systems 16A,B,C corresponding to the session participants 12A,B,C", [0043] lines 1-5);

establishing a call control channel (fig. 3 see the channel carrying "leg message") *between the logical representation of the first tele*com *device and the client system* (again refer to fig. 3 depicting, at "connection layer", "CSM 14" having "leg controller 20" paired up with "leg controller 20" of "endpoint system 1" for passing above cited "leg messages") *the call control channel* (again, fig. 3 the channel carrying "leg messages" at the "connection layer") *being different from the device control channel* (again, fig. 3 e.g. "channel a" at the "transport layer", which is shown to be *different from the channel* carrying the "leg messages");

*controlling the first tele*com *device via the logical representation using the call control channel* (see discussion above for claim 20 regarding "CSM 14" *controlling* "endpoint system 1" *via the logical representation* comprising using *the call control channel* carrying "leg messages") *and via the physical representation using the device*

control channel (see discussion above for claim 20 regarding "STM 19" *controlling* "endpoint system 1" *via the physical representation* comprising using *the physical control channel*, e.g., "channel a"); *and*

monitoring the first telecom device via the logical representation using the call control channel and via the physical representation using the device control channel (see discussion above again regarding controlling provided by "SCM 14/STM 19", and further see "The session manager 14 and the session-transport functionality are kept in step through 'leg controllers' 20 (shown in fig. 3)" recited [0045] lines 8-10, and "The leg controller 20 ... monitor the connection state of the entity" recited [0073] lines 8-12).

Regarding claim 33, *a communication network* (figs. 3 and 7) *comprising:*

a plurality of telecom devices (fig. 3 "endpoint system 1"/"endpoint system 2" which are shown in fig. 7 as "CSR 74"/"customer 60"), *each telecom device* (e.g., "endpoint system 1"/"CSR 74") *having a logical representation* (in view of above cited "abstraction 11" and see further "the connection-state abstractions exchanged by the leg controllers represent high-level, logical participation in the session transport", [0074] lines 14-18) *and a physical representation* (see, on the one hand and in general, "connection details include the address and type of the session transport", [0070] lines 4-5, and see, on the other hand and more particularly, "To interface with a particular call, the CSR selects the row containing the call details (and possibly is also required to press an appropriate button", [0188] last three lines) *for the telecom device* ("endpoint system 1"/"CSR desktop 74"), *the logic representation for a telecom device representing a communication link of the telecom device* ("high-level logical participation" cited above

for "connection layer" in fig. 3), *the physical representation* ("connection/call details" cited above) *of a tele*com *device representing physical attributes of the tele*com *device* (e.g. "type of the session transport" as well as "appropriate button" of "endpoint system" cited above), *by a method* ("operating method", [0006] line 2); *and*

a plurality of client systems (fig. 3/7 "communication session manager 14/69" together with fig. 3 "session transport manager 19". For convenience of later discussion we denote hereinafter "communication session manager" as "CSM" and "session transport manager 19" as "STM", which "can be a third party system accessed by users, including contract center CSRs, over the internet", [0377] lines 1-3), *each client system* ("CSM" + "STM") *for controlling and monitoring* (see fig. 3 and note "CSM" having "leg controller 20" coupled with a counterpart "leg controller 20" in "endpoint system 1" for providing *controlling and monitoring* of said "endpoint system 1" depicted in fig. 7 as "CSR system 74", [0154] line 16, as well as "for keeping track of a current session and its participants", [0042] lines 11-12) *calls placed through a tele*com *device* (fig. 3/7 "endpoint system 1/74", which carries *calls placed through* it to, e.g., fig. 3/7 "endpoint system 2/60") *by performing steps comprising:*

determining relationships between the client systems ("CSM 14/STM 19" cited above) *and a first tele*com *device* ("endpoint system 1" or "CSR 74, and see above cited "the connection-state abstractions exchanged by the leg controllers", e.g. fig. 3 respective "leg controllers 20" pair in "communication session manager 14" and "endpoint system 1");

establishing a device control channel (fig. 3 e.g. "channel a" of "session transport 15" in "STM 19") *between the physical representation of the first telecom device* (e.g., "type of transport" of "endpoint system 1") *and the client system* (fig. 3 "STM 19" and see "Associate with each communication session is a session transport 15 (fig. 2) which is an abstraction of functionality for actually effecting data communication between endpoint systems 16A,B,C corresponding to the session participants 12A,B,C", [0043] lines 1-5); *and*

establishing a call control channel (fig. 3 see the channel carrying "leg message") *between the logical representation of the first telecom device and the client system* (again refer to fig. 3 depicting, at "connection layer", "CSM 14" having "leg controller 20" paired up with "leg controller 20" of "endpoint system 1" for passing above cited "leg messages") *the call control channel* (again, fig. 3 the channel carrying "leg messages" at the "connection layer") *being different from the device control channel* (again, fig. 3 e.g. "channel a" at the "transport layer", which is shown to be *different from the channel* carrying the "leg messages"); *and*

controlling the first telecom device via the logical representation using the call control channel (see discussion above for claim 20 regarding "CSM 14" *controlling* "endpoint system 1" *via the logical representation* comprising using *the call control channel* carrying "leg messages") *and via the physical representation using the device control channel* (see discussion above for claim 20 regarding "STM 19" *controlling* "endpoint system 1" *via the physical representation* comprising using *the physical control channel*, e.g., "channel a"); *and*

monitoring the first telecom device via the logical representation using the call control channel and via the physical representation using the device control channel (see discussion above again regarding controlling provided by "SCM 14/STM 19", and further see "The session manager 14 and the session-transport functionality are kept in step through 'leg controllers' 20 (shown in fig. 3)" recited [0045] lines 8-10, and "The leg controller 20 … monitor the connection state of the entity" recited [0073] lines 8-12).

Having discussed Wilcock_1 above, it is noted that Wilcock_1, while disclosing *telecom device* ("endpoint system"), does not expressly disclose, regarding claims 20, 26 and 33, such *telecom device* being particularly *telephony* device. However, on the one hand, using *telephony devices* in a "contact center" had been a notorious old and well known technique at the time of instant invention. In fact, call "contact centers" started with, as well appreciated by one skilled in the art, *telephone devices*. It goes back as early as the telephony industry. It had only been a later development for "contact centers" to use the kind of "CSR desktop" *telecom devices* in Wilcock_1 along with the technology of computer/data networks such as the "Public Internet 63" of Wilcock_1's fig. 7. On the other hand, Wilcock also discloses a different embodiment to practice his invention comprising Wilcock_2 (fig. 21) wherein a "CSR 74" desktop uses "call-center management system 72" for call control/monitoring. Wilcock_2 comprises:

Regarding claims 20/26/33, using *telephony device* (see fig. 21 depicting "CSR 74" desktop uses "call-center management system 72" to control/monitor a *telephony device* located locally thereto for communication with a remote "customer 60" *telephony*

device, and see further "Extending a Telephone Session by Web Rendezvous", [0267], "described with reference to fig. 21", [0268] last two lines).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify Wilcock_1 by adding the "Telephone Session" of Wilcock_2 in order provide backward compatibility in the art wherein "the current dominant method for a customer to contact an enterprise for help is [still] to dial an 800 number" and thus "it would be useful to be able to add in web interaction to an existing telephone interaction between a customer and CSR" (Wilcock, [0268] lines 1-4).

- **With respect to Dependent claims**

  In follows, unless otherwise mentioned, references are drawn to Wilcock_1.

  Regarding claim 21, *for each telephony device* (Wilcock_2, fig. 21, "telephone interaction" cited above) ...

  Regarding claims 21 / 27, *when the telephony device / first telephony device is a time division multiplexing (TDM) device* (it is well known in the art that *TDM* is used for traditional PSTN *telephony* wherein "dominant method for a customer to contact an enterprise for help is to dial an 800 number" as cited above),

  associating the logical representation and the physical representation (see discussion above for claim 20) *with a phone number of the telephony device / first telephony device* ("The information contained in the initiation context will to some extent be service specific but will generally involve information grouped in the following data sets:", [0126] and further, "This data set is used to describe the characteristics of the requesting party. Examples are ... telephone number", [0127] lines 1-4),

when the telephony device / first telephony device is a SIP device ("Internet protocol (IP) socket and Session Initiation Protocol (SIP) transports are other possible alternative implementation choices", [0088] lines 9-11),

associating the logical representation ("high-level logical participation") *of the telephony device* (Wilcock_2, "telephone interaction") *with an electronic mail address* ("The information contained in the initiation context will to some extent be service specific but will generally involve information grouped in the following data sets:", [0126] and further, "This data set is used to describe the characteristics of the requesting party. Examples are ... e-mail address", [0127] lines 1-4); *and*

associating the physical representation ("type of the transport") *of the telephony device* (Wilcock_2, "telephone interaction") *with a fully qualified domain name* ("where a page-push channel is provided, the content filters applied to that channel will generally take the form of URLs or domain names", [0362] lines 1-3).

Regarding claims 34, *when the telephony device / first telephony device is a time division multiplexing (TDM) device* (it is well known in the art that *TDM* is used for traditional PSTN *telephony* wherein "dominant method for a customer to contact an enterprise for help is to dial an 800 number" as cited above. See also e.g. http://en.wikipedia.org/wiki/Time-division_multiplexing as accessed February 2, 2009 for a discussion of TDM used for telephony), *the logical representation and the physical representation* (see discussion above for claim 20) *is associating with a phone number of the first telephony device* ("The information contained in the initiation context will to some extent be service specific but will generally involve information grouped in the

following data sets:", [0126] and further, "This data set is used to describe the characteristics of the requesting party. Examples are ... telephone number", [0127] lines 1-4); *and when the telephony device / first telephony device is a SIP device* ("Internet protocol (IP) socket and Session Initiation Protocol (SIP) transports are other possible alternative implementation choices", [0088] lines 9-11),

the logical representation ("high-level logical participation") *of the telephony device* (Wilcock_2, "telephone interaction") *is associating with an electronic mail address* ("The information contained in the initiation context will to some extent be service specific but will generally involve information grouped in the following data sets:", [0126] and further, "This data set is used to describe the characteristics of the requesting party. Examples are ... e-mail address", [0127] lines 1-4); *and*

the physical representation ("type of the transport") *of the telephony device* (Wilcock_2, "telephone interaction") *is associating with a fully qualified domain name* ("where a page-push channel is provided, the content filters applied to that channel will generally take the form of URLs or domain names", [0362] lines 1-3, noting also that "e-mail address" cited above is also well known to comprise a *domain name*).

Regarding claim 22 / 28 / 35, *wherein the determining of relationships between telephony devices / a telephony device and client systems / the client system* (see discussion above for claims 20/26/33 regarding *determining relationship* between "endpoint system" and "CSM/STM") *includes searching a network directory for a listing of telephony devices within the communication network* (refer to fig. 6 and see "a

session initiation instance associated with the page and customer then accesses customer profile database 39 to extract customer data" recited [0316] lines 1-3).

4. Claims 23/29/36 and 24/30/37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcock (including Wilcock_1 and Wilcock_2), as applied to claims 20/26/33 above, in view of Roach (Network Working Group Request for Comments: 3265 Updates: 2543, June 2002: Session Initiation Protocol (SIP) – Specific Event Notification).

Wilcock discloses claimed limitations in section 3 above. Wilcock further discloses the following features:

Regarding claims 23/29/36, *wherein establishing a device control channel between a client system and a telephony device* (see discussion in section 3 above for claims 20/26/33 regarding *establishing* e.g. "channel a" *between client system* "STM" and "endpoint system" which per Wilcock_2 comprising a *telephony device*) *comprises:*

sending an invitation *message from the client system to the physical representation of the telephony device* ("Adding identified participant to the session – this results in an invitation being passed to the identified participant system", [0053] lines 1-3, which will have to be sent *to the physical representation* thereof, such as "the address and type of the session transport" in Wilcock's term, as well known to one skilled in the art);

receiving an accepted *response from the physical representation of the telephony device to the client system* ("if the invitation is accepted (as notified to the session through the corresponding leg controller)" recited p3 right col. lines 2-4);

sending a connected *message from the client system to the physical representation of the telephony device in response to receiving the* accepted *response* ("if the invitation is accepted ... a 'Connected' event is produced" recited p3 right col. lines 4-5, noting that it is well known in the art that if a called party in a call is connected, a connected message will necessarily be passed to the party)

(noting that in above three message sequence, invitation, accepted, connected are functionally the same as corresponding *SIP INVITE*, *SIP OK* and *SIP ACK* messages being claimed. Since Wilcock also discloses, in general terms, using "SIP" protocol for messaging in his system as discussed in section 3 above, it would have been obvious to one skilled in the art that above invitation, accepted, and connected message be converted to their counterparts in *SIP* when "*SIP*" protocol is employed system-wise in Wilcock).

Regarding claims 24/30/37, *wherein establishing a call control channel between a client system and a telephony device* (see discussion in section 3 above for claims 20/26/33 regarding *establishing* e.g. "leg message" channel *between client system* "STM" and "endpoint system" which per Wilcock_2 comprising a *telephony device*) *comprises:*

sending an option *message from the client system to the logical representation of the telephony device* ("The information contained in the initiation context will to some extent be service specific but will generally involve information grouped in the following data sets:", [0126], as one of the messages, "Communication option. This data set describes the preferred communication mechanism of the requesting party", [0131] lines

1-3, which is sent as a "leg message" to the *logic presentation* comprising "logic participation" as cited in section 3 above for claims 20/26/33);

receiving an accepted *response set from the logical representation of the telephony device to the client system* ("if the invitation is accepted (as notified to the session through the corresponding leg controller) a "Connected" event is produced" recited p3 right col. lines 2-4);

(noting that above said two messages are functionally the same as corresponding *SIP OPTION* and *SIP OK* messages being claimed. Since Wilcock also discloses, in general terms, using "SIP" protocol for messaging in his system as cited above in paragraph for claim 9, it would have been obvious to one skilled in the art that above option message and accepted message be converted to *SIP* compliant messaging when "*SIP*" is employed system-wise in Wilcock).

Wilcock does not expressly teach, regarding claims 23/29/36 and 24/30/37, *sending a SIP SUBSCRIBE message from the client system to the telephony device; receiving a SIP OK response sent from the telephony device; and sending a SIP NOTIFY message to the client system to notify the client device of changes in the status of a physical attribute* (claims 23/29/36) or *communication link* (claims 24/30/37) *of the telephony device.*

Roach discloses "an extension to the Session Initiation Protocol (SIP)" (Abstract lines 1-2) comprising above cited messaging sequences missing from Wilcock. Particularly:

Regarding claims 23/29/36 and 24/30/37, *sending a SIP SUBSCRIBE message from the client system to the telephony device; receiving a SIP OK response sent from the telephony device; and sending a SIP NOTIFY message to the client system to notify the client device of changes in the status of a physical attribute* (claims 23/29/36) or *communication link* (claims 24/30/37) *of the telephony device.* (see [page 3] for "A typical flow of messages would be:

```
Subscriber                Notifier
   |------SUBSCRIBE----->  |  Request state subscription
   |<------ 200 ----------  |  Acknowledge subscription
   |<------NOTIFY----------  |  Return current state information")
```

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Wilcock by adding the SIP messaging sequence of Roach in order to provide a fully SIP compliant system that, as Roach points out has "the ability to request asynchronous notification of events" ([page 2] "Introduction" line 1) which has been proven "useful in many types of SIP services for which cooperation between end-nodes is required" ([page] 2 "Introduction" lines 2-3).

5. Claims 25/31/38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcock (including Wilcock_1 and Wilcock_2), as applied to claims 20/26/33 above, and in view of Wengrovitz et al (US 2003/0023730, Wengrovitz hereinafter).

Wilcock_1 in view of Wilcock_2 discloses claimed limitations in section 3 above, which further comprises (again, unless otherwise mentioned, references below are drawn to Wilcock_1) the following features:

Regarding claim 25, *when a telephony device* (Wilcock_2, "telephone interaction", which is shown also in fig. 21) *with a relation to a client system* (fig. 3 "CSM 14/STM 19")...

Regarding claims 31/38, *when the first telephony device* (Wilcock_2, "telephone interaction", which is shown also in fig. 21) ...

Regarding claims 25/31, *is a time division multiplexing ("TDM") device* (it is well known in the art that *TDM* is used for traditional PSTN *telephony* wherein "dominant method for a customer to contact an enterprise for help is to dial an 800 number" as cited above for claim 21. See also e.g. http://en.wikipedia.org/wiki/Time-division_multiplexing as accessed February 2, 2009 for a discussion of TDM used for telephony), *providing* ...

Regarding claim 38, *including* ...

Regarding claims 25 / 31 / 38, *a front end SIP unit in communication with the telephony device / first telephony devices* (fig. 3 "service front-end 27" *unit* which is shown to be *in communication with* "endpoint system 1", which per Wilcock_2 comprises above cited "telephone" device, and noting that said "front-end 27" performs "the first step" to "select a communication session 11", [0123] lines 1-2, which "first step is carried out by session initiation functionality 35", [0123] lines 9-10, emphasis added, which indicates that "front-end 27" must be a *SIP front end*).

Wilcock does not expressly disclose, regarding claims 25/31/38, *the client system* (fig. 3 "CSM 14" + "STM 19") *adapted to convert SIP data to computer-telephony-integration ("CTI") data and convert CTI data to SIP data*. Despite of that, it is

in fact obvious that, when Wilcock_1 and Wilcock_2 are combined, wherein Wilcock_1 disclosed using *telecom devices* with *session initialization protocol* (*SIP*) and Wilcock_2 disclosed said *telecom devices* comprising *telephony devices*, the client system will have to be able to perform the claimed bidirectional "*CTI↔SIP*" *data conversion* because otherwise the task/goal, as Wilcock_2 desired, of "extending a telephone session by web rendezvous" ([0267]) that enable one to handle situation in which "the current dominant method for a customer to contact an enterprise for help is [still] to dial an 800 number" ([0268]) would not be successfully accomplished/reached. However, it is acknowledged that the claimed "*CTI↔SIP*" *data conversion* is indeed not expressly disclosed by Wilcock, and neither Wilcock discloses, regarding claim 39, *wherein the first telephony device* (Wilcock_2, "telephone interaction") *is a SIP-enabled PBX phone*.

Wengrovitz discloses "a system for conducting multimedia SIP sessions via multiple hosts, such as a PC and a telephone" (Abstract lines 1-2) using, refer to fig. 5, "SIP-enabled PBX" having an "emulation client" and a "VoIP conversion stack" comprising the following features:

Regarding claims 25/31/38, *the client system* (fig. 5 "emulation client 70") *adapted to convert SIP data to computer-telephony-integration ("CTI") data and convert CTI data to SIP data* ("the emulation client 70 converts received SIP message to PBX messages, such as for example CST, CTI, H.323, or other PBX signaling events", [0049] lines 4-6, emphasis added, noting that it would have been obvious to one skilled in the art that reversed conversion is also necessary for smooth communication

between, see fig. 5, "telephone stack 80", "SIP stack 76" and "VoIP conversion stack 68").

Regarding claim 39, *wherein the first telephony device is a SIP-enabled PBX phone* (fig. 5 "SIP-enabled PBX 66").

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method/system of Wilcock by adding the SIP/CTI conversion method and SIP-enabled PBX of Wengrovitz to Wilcock in order to "provides reliable SIP phone connections while providing an improved display of data, video, and/or graphics" (Wengrovitz, [0008] lines 2-4).

6. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcock (including Wilcock_1 and Wilcock_2), as applied to claim 26 above, and in view of Miller et al (US 2003/0076851, Miller hereinafter).

Wilcock_1 in view of Wilcock_2 discloses claimed limitations in section 3 above. Wilcock_1 further discloses:

Regarding claim 32, *the establishing of the device control channel* (fig. 3 "STM 19" *establishing* e.g. "channel a" for *device control* controlling "type of session transport" of "endpoint system 1") *includes establishing a first* channel (again "Channel a") *and establishing of the call control channel* (fig. 3 "CSM 14" *establishing* e.g. "leg messages" channel for *call control* controlling "connection" of "endpoint system 1") *includes establishing a second* channel (again "leg messages" channel) *that is different from the*

first channel (fig. 3 shows that "leg messages" channel being *different from the* "Channel a").

It is noted that Wilcock, in disclosing above cited two different control channels, does not expressly disclose establishing such control channels in terms of two different *SIP sessions*. However, on the one hand, Wilcock suggested using SIP as a choice for implementing the invention ("Internet protocol (IP) sockets and Session Initiation Protocol (SIP) transports are other possible alternative implementation choices", [0088] last three lines), and on the other hand, using *SIP session* to establish control channel had been long the art at the time of the instant invention (in fact, it is well known in the art that one of the original goals of SIP standard is for establishing control channel/link with a communication device by establishing a SIP session). Below is just one example.

Miller discloses an invention wherein "A Voice over Internet Protocol (VoIP) network is described in which session state is maintained in access switches" (Abstract lines 1-2), comprising:

Regarding claim 32, establishing control channel includes establishing *SIP session* ("SIP uses invitations to create Session Description Protocol (SDP) messages to carry out capability exchange and setup call control channel use. Such invitations allow 'participants' to agree on a set of compatible media types", [0058] lines 6-10)

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify Wilcock's method/system for control channel establishment by adding Miller's suggestion of establishing *SIP session* for control channel in order to

provide a more robust call control that "is relatively simple, efficient, and extendable, owing much of its design philosophy and architecture" (Miller, [0058] lines 3-4).

Response to Arguments

7. Applicant's arguments with respect to all Independent claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant cancelled all previously presented claims and submitted a totally new set of claims wherein a major difference is the newly added limitation of *telephony device(s)*, while previously present claims set forth the limitation of broadly claimed *communication device(s)*. Applicant's argument is essentially directed to this feature of "*telephony device*" that is being giving *physical/logical representation* and being controlled by a *client system* via *device/call control channels*. Particularly, Applicant argues (Remarks page 11 last paragraph), "Wilcox [should be Wilcocks] is unrelated to a client system monitoring and controlling a telephony device. Wilcox describes a service system of a 'contact center' that allows customers to communicate with customer service representatives ('CSRs') via their computer systems, referred to as endpoint systems. ... There is no telephony device that is controlled or monitored by the endpoint systems" (emphasis added by examiner).

These arguments are moot because, as clearly discussed in section 3 above, Wilcock_1 provides a first embodiment (figs. 3 and 7 and associated descriptions) wherein a *tele*com *device* ("endpoint system") is *monitored/controlled* by a *client system* ("CSM" + "STM") in exactly the way as claimed; and Wilcock_2 clearly provides a second embodiment (fig. 21 and associated descriptions) wherein a *telephony device* is

being used as an "endpoint system". Wilcock particularly stated "FIG. 21 is a diagram illustrating the sequence of events carried out in extending a telephone session with a web rendezvous using the web interaction service system of FIG. 7" ([0033]). Therefore, it would have been obvious to one skilled in the art to combine Wilcock_2 with Wilcock_1 in order provide backward compatibility in the art wherein "the current dominant method for a customer to contact an enterprise for help is [still] to dial an 800 number" and thus "it would be useful to be able to add in web interaction to an existing telephone interaction between a customer and CSR" (Wilcock, [0268] lines 1-4).

Therefore, the combination of Wilcock_1 + Wilcock_2 renders Applicant's argument moot.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW LAI whose telephone number is (571)272-9741. The examiner can normally be reached on M-F 7:30-5:00 EST, Off alternative Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on 571-272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Lai/
Examiner, Art Unit 2416

/Kwang B. Yao/

Supervisory Patent Examiner, Art Unit 2416